

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 1216WOORD01	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2005/050697	International filing date (day/month/year) 17/02/2005	(Earliest) Priority Date (day/month/year) 18/02/2004
Applicant ALTANA PHARMA AG		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

1, 2, 4-TRIAZOLO '4, 3-A! PYRIDINES USEFUL IN THE TREATMENT OF GASTROINTESTINAL DISORDERS.

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2005/050697

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D471/04 A61P1/04 A61K31/424 C07D333/38 C07D333/24  
C07D277/56 C07D277/30 C07D213/87 C07D213/54 C07D215/54  
C07D215/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61P A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 358 453 A (BRISTOL, JAMES A. ET AL) 9 November 1982 (1982-11-09) cited in the application claims 1,8-12,16; example -----	1,11,12

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

12 May 2005

Date of mailing of the international search report

25/05/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
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Authorized officer

Bosma, P

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Information on patent family members

International Application No

PCT/EP2005/050697

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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US 4358453      A      09-11-1982      NONE

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1216WOORD01

1/9

**PCT REQUEST**

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<b>0</b>	<b>For receiving Office use only</b>	
<b>0-1</b>	International Application No.	
<b>0-2</b>	International Filing Date	
<b>0-3</b>	Name of receiving Office and "PCT International Application"	
<b>0-4</b>	<b>Form - PCT/RO/101 PCT Request</b>	
<b>0-4-1</b>	Prepared Using	<b>PCT Online Filing Version 3.50 (Build 0001.162)</b>
<b>0-5</b>	<b>Petition</b> The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
<b>0-6</b>	<b>Receiving Office (specified by the applicant)</b>	<b>European Patent Office (EPO) (RO/EP)</b>
<b>0-7</b>	<b>Applicant's or agent's file reference</b>	<b>1216WOORD01</b>
<b>I</b>	<b>Title of Invention</b>	<b>1,2,4-TRIAZOLO[4,3-A]PYRIDINES</b>
<b>II</b>	<b>Applicant</b>	
<b>II-1</b>	This person is:	<b>applicant only</b>
<b>II-2</b>	Applicant for	<b>all designated States except US</b>
<b>II-4</b>	Name:	<b>ALTANA PHARMA AG</b>
<b>II-5</b>	Address:	<b>Byk-Gulden-Str. 2 78467 Konstanz Germany</b>
<b>II-6</b>	State of nationality	<b>DE</b>
<b>II-7</b>	State of residence	<b>DE</b>
<b>II-8</b>	Telephone No.	<b>+49 - (0) 7531-84-5320</b>
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<b>II-10</b>	e-mail	<b>DEKON.IPPA-DE@altanapharma.com</b>

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III-1	<b>Applicant and/or inventor</b>	
III-1-1	This person is:	applicant and inventor
III-1-2	Applicant for	US only
III-1-3	Inventor for	AP: (BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW); EA: (AM AZ BY KG KZ MD RU TJ TM); EP: (AT BE BG CH&LI CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU MC NL PL PT RO SE SI SK TR); OA: (BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG); AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH&LI CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
III-1-4	Name (LAST, First)	BUHR, Wilm
III-1-5	Address:	Zum Kirchenwald 7 78465 Konstanz Germany
III-1-6	State of nationality	DE
III-1-7	State of residence	DE
III-2	<b>Applicant and/or inventor</b>	
III-2-1	This person is:	inventor only
III-2-4	Name (LAST, First)	ZIMMERMANN, Peter Jan
III-2-5	Address:	Zum Lerchental 43/1 78315 Radolfzell Germany
III-3	<b>Applicant and/or inventor</b>	
III-3-1	This person is:	inventor only
III-3-4	Name (LAST, First)	BREHM, Christof
III-3-5	Address:	Richentalstr. 8 78462 Konstanz Germany
III-4	<b>Applicant and/or inventor</b>	
III-4-1	This person is:	inventor only
III-4-4	Name (LAST, First)	PALMER, Andreas
III-4-5	Address:	Pirminweg 1a 78467 Konstanz Germany

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III-5	<b>Applicant and/or inventor</b>	
III-5-1	This person is:	inventor only
III-5-4	Name (LAST, First)	CHIESA, M. Vittoria
III-5-5	Address:	Alpenstr. 5 78464 Konstanz Germany
III-6	<b>Applicant and/or inventor</b>	
III-6-1	This person is:	inventor only
III-6-4	Name (LAST, First)	SIMON, Wolfgang-Alexander
III-6-5	Address:	Schubertstraße 17 78464 Konstanz Germany
III-7	<b>Applicant and/or inventor</b>	
III-7-1	This person is:	inventor only
III-7-4	Name (LAST, First)	POSTIUS, Stefan
III-7-5	Address:	Austraße 4b 78467 Konstanz Germany
III-8	<b>Applicant and/or inventor</b>	
III-8-1	This person is:	inventor only
III-8-4	Name (LAST, First)	KROMER, Wolfgang
III-8-5	Address:	Hinterhauserstr. 5 78464 Konstanz Germany
IV-1	<b>Agent or common representative; or address for correspondence</b>	
	The person identified below is hereby/ has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	WOLF, Ulrich
IV-1-2	Address:	c/o ALTANA Pharma AG, Byk-Gulden-Str. 2 78467 Konstanz Germany
IV-1-3	Telephone No.	+49 (0) 7531-84-5320
IV-1-4	Facsimile No.	+49 (0) 7531-84-5321
IV-1-5	e-mail	dekon.ippa-de@altanapharma.com
IV-1-6	Agent's registration No.	052382.9
IV-2	<b>Additional agent(s)</b>	additional agent(s) with same address as first named agent
IV-2-1	Name(s)	KROEGER, Bernd (0081260); MECHNICH, Oliver (0099430); WILD, Robert (099982.1);

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		<b>KRATZER, Bernd (095541.9) ; RUPP, Herbert (00052372.0)</b>	
<b>V</b>	<b>DESIGNATIONS</b>		
<b>V-1</b>	The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.		
<b>VI-1</b>	<b>Priority claim of earlier regional application</b>		
VI-1-1	Filing date	<b>18 February 2004 (18.02.2004)</b>	
VI-1-2	Number	<b>04003606.3</b>	
VI-1-3	Regional Office	<b>EP</b>	
<b>VI-2</b>	<b>Priority document request</b>		
	The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	<b>VI-1</b>	
<b>VII-1</b>	<b>International Searching Authority Chosen</b>	<b>European Patent Office (EPO) (ISA/EP)</b>	
<b>VII-2</b>	<b>Request to use results of earlier search; reference to that search</b>		
<b>VII-2-1</b>	Date	<b>25 June 2004 (25.06.2004)</b>	
<b>VII-2-2</b>	Number	<b>04003606</b>	
<b>VII-2-3</b>	Country (or regional Office)	<b>EP</b>	
<b>VIII</b>	<b>Declarations</b>	<b>Number of declarations</b>	
<b>VIII-1</b>	Declaration as to the identity of the inventor	<b>-</b>	
<b>VIII-2</b>	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	<b>1</b>	
<b>VIII-3</b>	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	<b>-</b>	
<b>VIII-4</b>	Declaration of inventorship (only for the purposes of the designation of the United States of America)	<b>1</b>	
<b>VIII-5</b>	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	<b>-</b>	

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VIII-2-1	<b>Declaration: Entitlement to apply for and be granted a patent</b> Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate: Name (LAST, First)	<b>in relation to this international application</b>  <b>ALTANA PHARMA AG is entitled to apply for and be granted a patent by virtue of the following:</b>
VIII-2-1(i)		ALTANA PHARMA AG is entitled as employer of the inventor, BUHR, Wilm
VIII-2-1(i)		ALTANA PHARMA AG is entitled as employer of the inventor, ZIMMERMANN, Peter Jan
VIII-2-1(i)		ALTANA PHARMA AG is entitled as employer of the inventor, BREHM, Christof
VIII-2-1(i)		ALTANA PHARMA AG is entitled as employer of the inventor, PALMER, Andreas
VIII-2-1(i)		ALTANA PHARMA AG is entitled as employer of the inventor, CHIESA, M. Vittoria
VIII-2-1(i)		ALTANA PHARMA AG is entitled as employer of the inventor, SIMON, Wolfgang-Alexander
VIII-2-1(i)		ALTANA PHARMA AG is entitled as employer of the inventor, POSTIUS, Stefan
VIII-2-1(i)		ALTANA PHARMA AG is entitled as employer of the inventor, KROMER, Wolfgang
VIII-2-1(x)	This declaration is made for the purposes of:	all designations except the designation of the United States of America



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VIII-4-1	<p><b>Declaration: Inventorship (only for the purposes of the designation of the United States of America)</b> Declaration of Inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America:</p>	<p>I hereby declare that I believe I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.</p> <p>This declaration is directed to the international application of which it forms a part (if filing declaration with application).</p> <p>I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.</p> <p>I hereby state that I have reviewed and understand the contents of the above-identified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications", by application number, country or Member of the World Trade Organization, day, month, and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.</p>
VIII-4-1-1	Prior applications:	

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		<p>I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application.</p> <p>I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.</p>
VIII-4-1-1-1	Name (LAST, First)	BUHR, Wilm
VIII-4-1-1-2	Residence: (city and either US State, if applicable, or country)	Konstanz, Germany
VIII-4-1-1-3	Mailing address:	Zum Kirchenwald 7 D-78465 Konstanz Germany
VIII-4-1-1-4	Citizenship:	DE
VIII-4-1-1-5	Inventor's Signature: (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	/Wilm BUHR/
VIII-4-1-1-6	Date: (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)	01 February 2005 (01.02.2005)

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<b>IX</b>	<b>Check list</b>	<b>number of sheets</b>	<b>electronic file(s) attached</b>
IX-1	Request (including declaration sheets)	<b>8</b>	✓
IX-2	Description	<b>21</b>	✓
IX-3	Claims	<b>7</b>	✓
IX-4	Abstract	<b>1</b>	✓
IX-5	Drawings	<b>0</b>	✓
IX-7	<b>TOTAL</b>	<b>37</b>	
	<b>Accompanying Items</b>	<b>paper document(s) attached</b>	<b>electronic file(s) attached</b>
IX-8	Fee calculation sheet	-	✓
IX-11	Copy of general power of attorney	-	<b>reference no. 2616</b>
IX-17	PCT-SAFE physical media	-	-
IX-19	Figure of the drawings which should accompany the abstract		
IX-20	Language of filing of the international application	<b>English</b>	
X-1	Signature of applicant, agent or common representative	<b>/Wilm BUHR/</b>	
X-1-1	Name (LAST, First)	<b>BUHR, Wilm</b>	
X-1-2	Name of signatory		
X-1-3	Capacity		
X-2	Signature of applicant, agent or common representative	<b>(PKCS7 Digital Signature)</b>	
X-2-1	Name (LAST, First)	<b>WOLF, Ulrich</b>	
X-2-2	Name of signatory		
X-2-3	Capacity		

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**FOR RECEIVING OFFICE USE ONLY**

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/EP
10-6	Transmittal of search copy delayed until search fee is paid	

**FOR INTERNATIONAL BUREAU USE ONLY**

11-1	Date of receipt of the record copy by the International Bureau	
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